HP 5890 SERIES II Quick Reference

Oven Temp Programming

1 ramp

OVEN TEMP | INIT VALUE | 9 | 0 | ENTER — Sets initial temp to 90.

INIT TIME | 1 | ENTER — Sets initial time to 1 min.

RATE | 5 | ENTER — Sets rate to 5 degrees/min.

FINAL VALUE | 1 | 5 | 0 | ENTER — Sets final temp to 150.

FINAL TIME | 1 | ENTER — Sets final time to 1 min.

Multiramp

Input ramp 1 as above and then:

RATE | A | 5 | ENTER — Sets 2nd rate to 5 degrees/min.

FINAL VALUE | 2 | 0 | 0 | ENTER — Sets 2nd final temp to 200.

FINAL TIME | 2 | ENTER — Sets 2nd final time to 2 min.

Isothermal

RATE | 0 | ENTER

For isothermal run without deleting entire program.

Detector Control

DET | A — Displays status of detector. ON / OFF — Controls status.

DET | A | – — Inverts polarity of TCD signal A prior to run.

DET | A | – | TIME | 1 | ENTER
Inverts polarity of TCD signal A at 1 min.

DET A TEMP | 2 | 5 | 0 | ENTER — Sets detector temp to 250.

[ ] | TCD SENS | A | ON — Changes TCD sensitivity to high.

ON = High sensitivity OFF = Low sensitivity

[ ] | TABLE | ADD | TCD SENS | A | ON | TIME | 2 | ENTER
Changes TCD sensitivity from low to high at 2 min and adds to timetable.

Split/Splitless Operation

Split

PURGE / VALVE | A | ON — Turns purge A on.
Inlet flow = column flow + split flow.

PURGE / VALVE | A | TIME | ON | 0 | ENTER
PURGE / VALVE | A | TIME | OFF | 0 | ENTER — Verifies that timetable is off.

Splitless

PURGE / VALVE | A | TIME | OFF | 0 | ENTER
Sets timetable for purge off at 0 min.

PURGE / VALVE | A | TIME | ON | 1 | . | 5 | ENTER
Sets timetable for purge on at 1.5 min.
(Valves do not automatically return to original state at end of run.)

Signal Assignments

SIG 1 | A | ENTER — Outputs response from detector A.

SIG 1 | A | – | B | ENTER — Outputs difference of A and B.

[ ] | TABLE | ADD | SIG 1 | ON | TIME | 1 | ENTER
Switches signals during run at time 1.

Signal Zeroing

SIG 1 | ZERO | 5 | 0 | ENTER — Sets zero to 50.

SIG 1 | ZERO | ON — Subtracts offset value from signal.

SIG 1 | ZERO | OFF — Offsets stored but not subtracted from signal.

SIG 1 | ZERO | ENTER — Zero baseline.

Ready/Not Ready

CLEAR | CLEAR ... Scrolls through ready status.

Inlet Pressure Programming

Pressure Program Mode

[ ] [INJ B PRES] [INIT VALUE] [1] [2] [ENTER]

Sets initial inlet B pressure to 12.

[INIT TIME] [1] [ENTER] Sets initial time to 1 min.

[RATE] [5] [ENTER] Sets rate to 5 psi/min.

[FINAL VALUE] [2] [5] [ENTER] Sets final pressure to 25.

[FINAL TIME] [1] [ENTER] Sets final time to 1 min.

Note: If the pressure program is shorter than the oven temperature program, constant flow mode automatically turns on at the end of the pressure program.

Constant Mass Flow Mode

[ ] [FLOW PARAM] [FLOW PARAM] .. Selects gas type display.

[1] = He, [2] = N_2, [3] = H_2, [4] = Ar/Me

[FLOW PARAM] Selects constant flow display.

[ON] / [OFF] Controls status.

[ ] [INJ B PRES] [1] [2] [ENTER] Sets initial pressure.
(Be sure oven is equilibrated at initial temperature.)

Setting Average Linear Velocity

Note: Before setting average linear velocity, the correct column parameters (column length, column diameter, and gas type) must be entered.

[CLEAR] [FLOW] [FLOW] Scroll to Column B Cm/Sec.

[1] [0] [0] [ENTER] Sets inlet B linear velocity to 100 cm/sec.

Selecting Pressure Units

To change the units, press [ ] [1] [ENTER] and then select

[1] = psi,

[2] = bar, or

[3] = kPa.

Setting Mass Flow Rate

Note: Before setting mass flow, the correct column parameters (corrected column length, column diameter, and gas type) must be entered.

[ ] [FLOW PARAM] [FLOW PARAM] Scroll to select gas type.

[FLOW PARAM] Scroll to Column Dia.

[.] [5] [3] [0] [ENTER] Sets the column diameter to .530 mm.

Column length must be entered in meters. If *exact* column length is unknown or if a packed column is in use, refer to the Operating Manual.

[FLOW PARAM] Scroll to Column Len.

[2] [5] [ENTER] Sets the column length to 25 meters.

[CLEAR] [FLOW] Scroll to Mass Flow display.

[1] [0] [ENTER] Sets inlet B flow to 10 ml/min.

Operating EPC

[ ] [INJ A PRES] [2] [5] [ENTER]
Sets inlet channel A pressure to 25.

[ ] [INJ B PRES] [2] [5] [ENTER]
Sets inlet channel B pressure to 25.

[ ] [B] [2] [5] [ENTER]
Sets auxillary channel C pressure to 25.

[ ] [C] [2] [5] [ENTER]
Sets auxillary channel D pressure to 25.

[ ] [COL COMP1] [2] [5] [ENTER]
Sets auxillary channel E pressure to 25.

[ ] [COL COMP2] [2] [5] [ENTER]
Sets auxillary channel F pressure to 25.

Using Vacuum Compensation Mode

[ ] [FLOW PARAM] [FLOW PARAM] Scroll to select EPP B Vac Comp.

[ON] / [OFF] Controls status.

Inlet Temperature Programming

Temperature Program Mode

INJ B TEMP | INIT VALUE | 9 | 0 | ENTER — **Sets initial inlet B temp to 90.**

INIT TIME | 1 | ENTER — **Sets initial time to 1 min.**

RATE | 5 | ENTER — **Sets rate to 5 degrees/min.**

FINAL VALUE | 1 | 5 | 0 | ENTER — **Sets final temp to 150.**

FINAL TIME | 1 | ENTER — **Sets final time to 1 min.**

Oven Track Mode

INJ B TEMP | | OVEN TRACK | ON — **Turns final time to 1 min.**

Valve Programming

| | TABLE | ADD | PURGE / VALVE | 1 | ON | TIME | 2 | ENTER

Turns on valve 1 at 2 min and adds to timetable.

| | TABLE | NEXT / PREVIOUS **... Scrolls to the desired timetable entry.**

DELETE | ENTER — **Deleted timetable entry.**

(Valves automatically return to original state at end of run.)

Column Compensation

COL COMP1 | A | ENTER — **Initiates compensation for detector A.**

COL COMP1 | ▪ | ENTER — **Initiates simultaneous compensation for the indicated detectors.**

SIG 1 | A | — | COL COMP1 — **Applies compensated signal to the indicated detectors.**

Cryogenic Control

[ ] [CRYO PARAM] [CRYO PARAM] [CRYO PARAM] ...

Scrolls through cryogenic options.

CRYO [ON] is for subambient runs.

CRYO BLAST [ON] is for very fast cooling between runs.

Stopwatch

[TIME] [TIME] [TIME] During a run: scrolls through elapsed time, remaining time, and stopwatch. In standby: scrolls through last run time, next run time, and stopwatch.

[ENTER] Starts/Stops stopwatch [CLEAR] Resets stopwatch

Zeroing Pressure

[ ] [INJ B PRES] [0] [.] [0] [ENTER]

Set inlet B pressure to 0.0.

[ ] [3] [ENTER] *value* [ENTER]

where *value* is the zero offset value shown on the GC display labeled ACTUAL.

Using Vacuum Compensation Mode

[ ] [FLOW PARAM] [FLOW PARAM] Scroll to select EPP B Vac Comp.

[ON] / [OFF] Controls status.

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